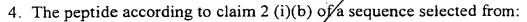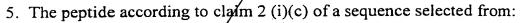CLAIMS:

1. A synthetic peptide or a derivative thereof capable of inhibiting the biological activity of anti-beta-2-glycoprotein 1 (β2GPI) monoclonal antibodies (anti-β2GPI mAbs) *in vitro*, and of inhibiting *in vivo* induction of experimental anti-phospholipid syndrome (APS) in mice by anti-β2GPI mAbs.

2. The peptide or derivative according to claim 1, being selected from the group consisting of:

(i) a peptide of at least 4 amino acid residues comprising a sequence selected from:

(a) Thr - Pro - Arg - Val

(b) Lys - Ala - Thr - Phe

(c) Leu - Arg - Val - Tyr

(ii) a cyclic derivative of a peptide of (i);

(iii) a peptide according to (i) or (ii) in which one or more amino acid residues have been replaced by the corresponding D-isomer or by a non-natural amino acid residue;

(iv) a chemical derivative of a peptide according to (i) - (iii);

(v) a multichain peptide-oligomer/polymer conjugate comprising two or more of the same or different peptides or peptide derivatives (i) to (iv) attached to a native or synthetic multifunctional oligomeric or polymeric backbone; and

(vi) a multiple antigen peptide in which two to eight same or different peptides or peptide derivatives (i) to (iv) are anchored onto a diaminoalkanoic acid core.

3. The peptide according to claim 2 (i)(a) of a sequence selected from:

Leu - Lys - Thr - Pro - Arg - Val

Lys - Thr - Pro - Arg - Val - Thr

Asn - Thr - Leu - Lys - Thr - Pro - Arg - Val - Gly - Gly

4. The peptide according to claim 2 (i)(b) of a sequence selected from:

Lys - Asp - Lys - Ala - Thr - Phe

Lys - Asp - Lys - Ala - Thr- Phe - Gly - Thr - His - Asp - Gly

5. The peptide according to claim 2 (i)(c) of a sequence selected from:

Thr - Leu - Arg - Val - Tyr - Lys

Thr - Lys - Leu - Arg - Val - Tyr

Thr - Leu - Leu - Arg - Val - Tyr

Cys - Ala - Thr - Leu - Arg - Val - Tyr - Lys - Gly – Gly

6. The chemical derivative of a peptide according to claim 2 (iv) wherein the peptide is biotinylated.

7. The multichain peptide-oligomer/polymer conjugate according to claim 2 (v) wherein the polymeric backbone is derived from a native protein, oligosaccharide, or oligonucleotide.

8. The multichain peptide-oligomer/polymer conjugate according to claim 7 wherein the protein is avidin, streptavidin, albumin or gamma-globulin.

9. The multichain peptide-oligomer/polymer conjugate according to claim 8 wherein the protein is avidin or streptavidin to which two or four residues of the same or different biotinylated peptides are covalently attached.

10. The multichain peptide-oligomer/polymer conjugate according to claim 9 wherein the protein is streptavidin and the biotinylated peptide is selected from:

Asn - Thr - Leu - Lys - Thr - Pro - Arg - Val - Gly - Gly

Lys - Asp - Lys - Ala - Thr - Phe - Gly - Thr - His - Asp – Gly

Cys - Ala - Thr - Leu - Arg - Val - Tyr - Lys - Gly – Gly

11. The multichain peptide-oligomer/polymer conjugate according to claim 7 wherein the backbone is derived from a non-antigenic synthetic oligomer or polymer.

12. The multichain peptide-oligomer/polymer conjugate according to claim 11 wherein the non-antigenic synthetic oligomer or polymer comprises identical or different amino acid residues such as linear or branched polylysine, polyglutamic acid, and copolymers thereof optionally together with further amino acids.

13. The multiple antigen peptide according to claim 2(vi) in which two or four same or different peptides or peptide derivatives (i) to (iv) are anchored via a spacer onto a small immunogenically inert diaminoalkanoic acid core selected from diaminobutyric acid, ornithine, homolysine and lysine.

14. The multiple antigen peptide according to claim 13 wherein the spacer is Ala and the diaminoalkanoic acid core is $Fmoc_2$-Lys-Ala onto which are anchored two peptides selected from:

Asn - Thr - Leu - Lys - Thr - Pro - Arg - Val - Gly - Gly

Lys - Asp - Lys - Ala - Thr- Phe - Gly - Thr - His - Asp – Gly

Cys - Ala - Thr - Leu - Arg - Val - Tyr - Lys - Gly – Gly

15. The multiple antigen peptide according to claim 13 wherein the spacer is Ala and the diaminoalkanoic acid core is $Fmoc_4$-Lys_2-Ala onto which are anchored four peptides selected from:

Asn - Thr - Leu - Lys - Thr - Pro - Arg - Val - Gly - Gly

Lys - Asp - Lys - Ala - Thr- Phe - Gly - Thr - His - Asp – Gly

Cys - Ala - Thr - Leu - Arg - Val - Tyr - Lys - Gly – Gly

16. A pharmaceutical composition comprising at least one peptide or derivative according to any one of claims 1 to 15 and a pharmaceutically acceptable carrier.

17. A pharmaceutical composition according to claim 16 for the treatment of anti-phospholipid syndrome.

18. A method for treatment of anti-phospholipid syndrome which comprises administering to a patient in need thereof an effective amount of a peptide, a derivative thereof or a pharmaceutical composition according to ~~any one of~~ claims 1 ~~to 17~~.

19. A method for inactivating B cells responsible for the production of autoantibodies appearing in a patient suffering from anti-phospholipid syndrome which comprises administering to said patient an effective amount of a multichain peptide-oligomer/polymer conjugate or a multiple antigen peptide according to ~~any one of~~ claims 1 ~~   ~~.

20. A diagnostic kit comprising at least one peptide according to claim 1.

21. The kit according to claim 20, for the diagnosis of anti-phospholipid syndrome.